

IN THE CLAIMS

Please amend the claims as follows:

1-16. (Canceled)

17. (Currently Amended) A method for ~~transmitting and receiving radio-frequency signals in~~ operating an implantable medical device, comprising:

~~transmitting or receiving a modulated radio-frequency carrier at a specified carrier frequency to or from~~ radio-frequency (RF) signals using RF circuitry connected to a dipole antenna formed by first and second conductive portions of a housing of the implantable medical device; and

~~emitting a significant portion of radio-frequency energy delivered to the antenna at the specified frequency as far-field radiation~~

matching an impedance of the dipole antenna to the RF circuitry at a specified carrier frequency using an antenna tuning circuit;

delivering electrostimulation from therapy circuitry of the implantable medical device using a therapy lead and the housing as electrodes; and,

employing the antenna tuning circuit as a high-pass filter to block low-frequency energy generated by the electrostimulation from being received by the RF circuitry.

18. (Currently Amended) The method of claim 17, ~~further comprising matching an impedance of the antenna to the transmitting/receiving circuitry at a specified carrier frequency by loading the antenna with inductance or capacitance using an antenna tuning circuit~~ wherein the antenna tuning circuit includes a balun transformer.

19. (Currently Amended) The method of claim 17, further comprising converting between a single-ended RF signal generated or received by the ~~transmitter/receiver~~ RF circuitry and a differential signal generated or received by the dipole antenna with a the balun transformer.

20. (Currently Amended) The method of claim 18, ~~further comprising adjusting the resonant frequency of the antenna to a specified carrier frequency with a variable capacitor wherein the antenna tuning circuit includes a variable capacitor and further comprising matching the impedance of the dipole antenna to the RF circuitry at a specified carrier frequency by adjusting the capacitance of the variable capacitor.~~

21. (Currently Amended) The method of claim 17, ~~wherein transmitting/receiving to or from a dipole antenna formed by first and second conductive portions of a housing includes forming the antenna from first and second conductive housing halves and separating the housing halves wherein the first and second conductive portions of the housing are separated~~ with an insulating material.

22. (Currently Amended) The method of claim 21, ~~wherein forming the antenna from two conductive housing halves includes enclosing at least part of either an electrical therapy circuit, RF circuitry, or a battery in the first housing half, and enclosing at least one of the remaining part of either the therapy circuit, the RF circuit, or the battery in the second housing half wherein the RF circuitry is disposed in the first conductive portion of the housing and the therapy circuitry is disposed in the second conductive portion of the housing.~~

23. (Currently Amended) The method of claim 22, ~~wherein forming the antenna from two conductive housing halves includes enclosing only the battery in the first housing half further comprising supplying power to the implantable medical device from a battery disposed in the first conductive portion of the housing.~~

24. (Currently Amended) The method of claim 22, ~~wherein forming the antenna from two conductive housing halves includes enclosing the battery and the RF circuitry in the first housing half~~ 21, further comprising supplying power to the implantable medical device from a battery disposed in the first conductive portion of the housing and wherein the RF circuitry and therapy circuitry are disposed in the second conductive portion of the housing.

25. (Currently Amended) The method of claim 21, ~~wherein forming the antenna from first and second conductive housing halves includes sizing an electrical length of the housing halves to approximately one half wavelength or greater of the radio frequency carrier at the specified frequency~~ wherein RF signals are transmitted at a specified carrier frequency such that a substantial amount of far-field radiation is produced by the dipole antenna.

26. (Currently Amended) The method of claim 21, ~~wherein separating the housing halves with the insulating material includes separating the housing halves with a header compartment~~ 25, wherein the specified carrier frequency is between 300 Mega-hertz (MHz) and 1 Giga-hertz (GHz).

27. (Currently Amended) The method of claim 17, ~~wherein transmitting/receiving to or from a dipole antenna formed by first and second conductive portions of a housing includes isolating conductors of a therapy lead from RF signals~~ 25, wherein the specified carrier frequency is approximately 2.2 Giga-hertz (GHz).

28. (Currently Amended) The method of claim 27, ~~wherein isolating conductors of the therapy lead from the RF signals includes filtering the conductors of the therapy lead~~ 17, further comprising using a filter to isolate the therapy lead from the RF signals.

29. (Currently Amended) The method of claim 28, ~~wherein filtering the conductors of the therapy lead includes passing signals having frequencies within a predetermined band of frequencies~~ 28, wherein the filter is a low-pass filter.

30. (Currently Amended) The method of claim 17, ~~wherein transmitting/receiving a modulated radio frequency carrier at a specified carrier frequency includes specifying the carrier frequency to within a range that includes 300 Mega hertz (MHz) to 1 Giga hertz (GHz)~~ 28, wherein the filter is a notch filter.

31. (Currently Amended) The method of claim 17, wherein ~~transmitting/receiving a modulated radio-frequency carrier at a specified carrier frequency includes specifying the carrier frequency to about 2.2 Giga-hertz (GHz)~~ the first and second conductive portions of the housing are separated by a header made of insulating material and through which the therapy lead is routed.

32-36. (Cancelled)